

AMENDMENT**IN THE CLAIMS:**

Please amend the claims as follows:

1. (Currently amended) Surface-modified pyrogenically produced zinc oxide powder, characterized in that they are aggregates and have the following physico-chemical characteristic data:

BET surface areas: $18 \pm 5 \text{ m}^2/\text{g}$

C content: 0.5 to 1.0 wt.%,

wherein the surface modification includes silanization and the resultant modified surface is hydrophobic.

2. (Previously presented) Surface-modified pyrogenically produced zinc oxide powder according to Claim 1, which has been surface modified with a member selected from the group consisting of:

a) Organosilanes of the type $(\text{RO})_3\text{Si}(\text{C}_n\text{H}_{2n+1})$ and $(\text{RO})_3\text{Si}(\text{C}_n\text{H}_{2n-1})$

R = alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl-
n = 1 – 20

b) Organosilanes of the type $\text{R}'_x(\text{RO})_y\text{Si}(\text{C}_n\text{H}_{2n+1})$ and $\text{R}'_x(\text{RO})_y\text{Si}(\text{C}_n\text{H}_{2n-1})$

R = alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl-

R' = alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl-

R' = cycloalkyl

n = 1 - 20

x+y = 3

x = 1,2

y = 1,2

c) Halogeno-organosilanes of the type $\text{X}_3\text{Si}(\text{C}_n\text{H}_{2n+1})$ and $\text{X}_3\text{Si}(\text{C}_n\text{H}_{2n-1})$

X = Cl, Br

n = 1 – 20

d) Halogeno-organosilanes of the type $\text{X}_2(\text{R}')\text{Si}(\text{C}_n\text{H}_{2n+1})$ and $\text{X}_2(\text{R}')\text{Si}(\text{C}_n\text{H}_{2n-1})$

X = Cl, Br

R' = alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl-

R'=cycloalkyl

n = 1 - 20

e) Halogeno-organosilanes of the type

$X(R')_2Si(C_nH_{2n+1})$ and $X(R')_2Si(C_nH_{2n-1})$

X = Cl, Br

R' = alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl-

R'=cycloalkyl

n = 1 - 20

f) Organosilanes of the type $(RO)_3Si(CH_2)_m-R'$

R = alkyl, such as methyl-, ethyl-, propyl-

m = 0, 1 - 20

R' = methyl-, aryl (for example $-C_6H_5$, substituted phenyl radicals)

$-C_4F_9$, $-OCF_2-CHF-CF_3$, $-C_6F_{13}$, $-O-CF_2-CHF_2$

$-NH_2$, $-N_3$, $-SCN$, $-CH=CH_2$, $-NH-CH_2-CH_2-NH_2$,

$-N-(CH_2-CH_2-NH_2)_2$

$-OOC(CH_3)C=CH_2$

$-OCH_2-CH(O)CH_2$

$-NH-CO-N-CO-(CH_2)_5$

$-NH-COO-CH_3$, $-NH-COO-CH_2-CH_3$, $-NH-(CH_2)_3Si(OR)_3$

$-S_x-(CH_2)_3Si(OR)_3$

$-SH$

$-NR'R''R'''$ (R' = alkyl, aryl; R'' = H,

alkyl, aryl; R''' = H, alkyl, aryl, benzyl,

$C_2H_4NR''''R'''''$ where R'''' = H, alkyl and

R'''' = H, alkyl)

g) Organosilanes of the type $(R'')_x(RO)_ySi(CH_2)_m-R'$

R'' = alkyl x+y = 2

= cycloalkyl x = 1, 2

y = 1, 2

m = 0, 1 to 20

R' = methyl-, aryl (for example $-C_6H_5$, substituted phenyl radicals)

$-C_4F_9$, $-OCF_2-CHF-CF_3$, $-C_6F_{13}$, $-O-CF_2-CHF_2$

$-NH_2$, $-N_3$, $-SCN$, $-CH=CH_2$, $-NH-CH_2-CH_2-NH_2$,

$-N-(CH_2-CH_2-NH_2)_2$

$-OOC(CH_3)C=CH_2$

$-OCH_2-CH(O)CH_2$

$\text{-NH-CO-N-CO-(CH}_2\text{)}_5$
 -NH-COO-CH_3 , $\text{-NH-COO-CH}_2\text{-CH}_3$, $\text{-NH-(CH}_2\text{)}_3\text{Si(OR)}_3$
 $\text{-S}_x\text{-(CH}_2\text{)}_3\text{Si(OR)}_3$
 -SH
 $\text{-NR'R''R'''} \text{ (R' = alkyl, aryl; R'' = H, alkyl, aryl; R''' = H, alkyl, aryl, benzyl, C}_2\text{H}_4\text{NR'''' R'''' where R'''' = H, alkyl and R'''' = H, alkyl)}$

h) Halogeno-organosilanes of the type $\text{X}_3\text{Si(CH}_2\text{)}_m\text{-R'}$

$\text{X} = \text{Cl, Br}$

$m = 0, 1 - 20$

$\text{R' = methyl-, aryl (for example -C}_6\text{H}_5\text{, substituted phenyl radicals)}$

$\text{-C}_4\text{F}_9$, $\text{-OCF}_2\text{-CHF-CF}_3$, $\text{-C}_6\text{F}_{13}$, $\text{-O-CF}_2\text{-CHF}_2$

-NH_2 , -N_3 , -SCN , -CH=CH_2 ,

$\text{-NH-CH}_2\text{-CH}_2\text{-NH}_2$

$\text{-N-(CH}_2\text{-CH}_2\text{-NH}_2\text{)}_2$

$\text{-OOC(CH}_3\text{)C = CH}_2$

$\text{-OCH}_2\text{-CH(O)CH}_2$

$\text{-NH-CO-N-CO-(CH}_2\text{)}_5$

-NH-COO-CH_3 , $\text{-NH-COO-CH}_2\text{-CH}_3$, $\text{-NH-(CH}_2\text{)}_3\text{Si(OR)}_3$

$\text{-S}_x\text{-(CH}_2\text{)}_3\text{Si(OR)}_3$

-SH

i) Halogeno-organosilanes of the type $\text{(R)X}_2\text{Si(CH}_2\text{)}_m\text{-R'}$

$\text{X} = \text{Cl, Br}$

$\text{R} = \text{alkyl, such as methyl-, ethyl-, propyl-}$

$m = 0, 1 - 20$

$\text{R' = methyl-, aryl (e.g. -C}_6\text{H}_5\text{, substituted phenyl radicals)}$

$\text{-C}_4\text{F}_9$, $\text{-OCF}_2\text{-CHF-CF}_3$, $\text{-C}_6\text{F}_{13}$, $\text{-O-CF}_2\text{-CHF}_2$

-NH_2 , -N_3 , -SCN , -CH=CH_2 , $\text{-NH-CH}_2\text{-CH}_2\text{-NH}_2$,

$\text{-N-(CH}_2\text{-CH}_2\text{-NH}_2\text{)}_2$

$\text{-OOC(CH}_3\text{)C = CH}_2$

$\text{-OCH}_2\text{-CH(O)CH}_2$

$\text{-NH-CO-N-CO-(CH}_2\text{)}_5$

-NH-COO-CH_3 , $\text{-NH-COO-CH}_2\text{-CH}_3$, $\text{-NH-(CH}_2\text{)}_3\text{Si(OR)}_3$,

wherein R can be methyl-, ethyl-, propyl-, butyl-

-S_X-(CH₂)₃Si(OR)₃, wherein R can be methyl-, ethyl-, propyl-, butyl-
-SH

j) Halogeno-organosilanes of the type (R)₂X Si(CH₂)_m-R'

X = Cl, Br

R = alkyl

m = 0, 1 - 20

R' = methyl-, aryl (e.g. -C₆H₅, substituted phenyl radicals)

-C₄F₉, -OCF₂-CHF-CF₃, -C₆F₁₃, -O-CF₂-CHF₂

-NH₂, -N₃, -SCN, -CH=CH₂, -NH-CH₂-CH₂-NH₂

-N-(CH₂-CH₂-NH₂)₂

-OOC(CH₃)C = CH₂

-OCH₂-CH(O)CH₂

-NH-CO-N-CO-(CH₂)₅

-NH-COO-CH₃, -NH-COO-CH₂-CH₃, -NH-

(CH₂)₃Si(OR)₃

-S_X-(CH₂)₃Si(OR)₃

-SH

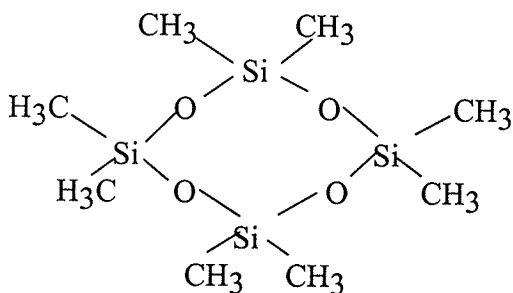
k) Silazanes of the type R'R₂Si-N-SiR₂R'



R = alkyl, vinyl, aryl

R' = alkyl, vinyl, aryl

l) Cyclic polysiloxanes of the type D 3, D 4, D 5, wherein D 3, D 4 and D 5 are understood as cyclic polysiloxanes with 3, 4 or 5 units of the type -O-Si(CH₃)₂-.E.g. octamethylcyclotetrasiloxane = D 4



$$\text{Y-O-} \left[\left(\begin{array}{c} \text{R} \\ | \\ \text{Si-O} \\ | \\ \text{R}' \end{array} \right)_m - \left(\begin{array}{c} \text{R}'' \\ | \\ \text{Si-O} \\ | \\ \text{R}' \end{array} \right)_n \right]_u \text{-Y}$$

$m = 0, 1, 2, 3, \dots \infty$
 $n = 0, 1, 2, 3, \dots \infty$
 $u = 0, 1, 2, 3, \dots \infty$

$\text{Y} = \text{CH}_3, \text{H}, \text{C}_n\text{H}_{2n+1} \quad n=1-20$
 $\text{Y} = \text{Si}(\text{CH}_3)_3, \text{Si}(\text{CH}_3)_2\text{H}$
 $\text{Si}(\text{CH}_3)_2\text{OH}, \text{Si}(\text{CH}_3)_2(\text{OCH}_3),$
 $\text{Si}(\text{CH}_3)_2(\text{C}_n\text{H}_{2n+1}) \quad n=1-20$

R' = alkyl, such as C_nH_{2n+1} , wherein n = 1 to 20, aryl, such as phenyl und substituted phenyl radicals, $(CH_2)_n-NH_2$, H

4. (Original) The process according to Claim 3, wherein the surface-modifying agent is a member selected from the group consisting of:

- a) Organosilanes of the type $(\text{RO})_3\text{Si}(\text{C}_n\text{H}_{2n+1})$ and $(\text{RO})_3\text{Si}(\text{C}_n\text{H}_{2n-1})$
 R = alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl-
 $n = 1 - 20$
- b) Organosilanes of the type $\text{R}'_x(\text{RO})_y\text{Si}(\text{C}_n\text{H}_{2n+1})$ and $\text{R}'_x(\text{RO})_y\text{Si}(\text{C}_n\text{H}_{2n-1})$
 R = alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl-
 R' = alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl-
 R' =cycloalkyl
 $n = 1 - 20$
 $x+y = 3$
 $x = 1,2$
 $y = 1,2$
- c) Halogeno-organosilanes of the type $\text{X}_3\text{Si}(\text{C}_n\text{H}_{2n+1})$ and $\text{X}_3\text{Si}(\text{C}_n\text{H}_{2n-1})$
 $\text{X} = \text{Cl}, \text{Br}$
 $n = 1 - 20$
- d) Halogeno-organosilanes of the type $\text{X}_2(\text{R}')\text{Si}(\text{C}_n\text{H}_{2n+1})$ and $\text{X}_2(\text{R}')\text{Si}(\text{C}_n\text{H}_{2n-1})$
 $\text{X} = \text{Cl}, \text{Br}$
 R' = alkyl, such as, for example, methyl-, ethyl-,
n-propyl-, i-propyl-, butyl-
 R' =cycloalkyl
 $n = 1 - 20$
- e) Halogeno-organosilanes of the type
 $\text{X}(\text{R}')_2\text{Si}(\text{C}_n\text{H}_{2n+1})$ and $\text{X}(\text{R}')_2\text{Si}(\text{C}_n\text{H}_{2n-1})$
 $\text{X} = \text{Cl}, \text{Br}$
 R' = alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-,
butyl-
 R' =cycloalkyl
 $n = 1 - 20$

f) Organosilanes of the type $(RO)_3Si(CH_2)_m-R'$

R = alkyl, such as methyl-, ethyl-, propyl-

m = 0, 1 - 20

R' = methyl-, aryl (for example $-C_6H_5$,

substituted phenyl radicals)

 $-C_4F_9$, $-OCF_2-CHF-CF_3$, $-C_6F_{13}$, $-O-CF_2-CHF_2$ $-NH_2$, $-N_3$, $-SCN$, $-CH=CH_2$, $-NH-CH_2-CH_2-NH_2$, $-N-(CH_2-CH_2-NH_2)_2$ $-OOC(CH_3)C=CH_2$ $-OCH_2-CH(O)CH_2$ $-NH-CO-N-CO-(CH_2)_5$ $-NH-COO-CH_3$, $-NH-COO-CH_2-CH_3$, $-NH-$ $(CH_2)_3Si(OR)_3$ $-S_X-(CH_2)_3Si(OR)_3$ $-SH$ $-NR'R''R'''$ (R' = alkyl, aryl; R'' = H,alkyl, aryl; R''' = H, alkyl, aryl, benzyl, C_2H_4NR'''' R'''' where R'''' =

H, alkyl and R'''' = H, alkyl)

g) Organosilanes of the type $(R'')_x(RO)_ySi(CH_2)_m-R'$

R'' = alkyl x+y = 2

= cycloalkyl x = 1, 2

y = 1, 2

m = 0, 1 to 20

R' = methyl-, aryl (for example $-C_6H_5$, substituted phenyl radicals) $-C_4F_9$, $-OCF_2-CHF-CF_3$, $-C_6F_{13}$, $-O-CF_2-CHF_2$ $-NH_2$, $-N_3$, $-SCN$, $-CH=CH_2$, $-NH-CH_2-CH_2-NH_2$, $-N-(CH_2-CH_2-NH_2)_2$ $-OOC(CH_3)C=CH_2$ $-OCH_2-CH(O)CH_2$ $-NH-CO-N-CO-(CH_2)_5$ $-NH-COO-CH_3$, $-NH-COO-CH_2-CH_3$, $-NH-$ $(CH_2)_3Si(OR)_3$ $-S_X-(CH_2)_3Si(OR)_3$ $-SH$ $-NR'R''R'''$ (R' = alkyl, aryl; R'' = H, alkyl, aryl; R''' = H, alkyl, aryl, benzyl, C_2H_4NR'''' R'''' where R'''' = H, alkyl and R'''' = H, alkyl)

h) Halogeno-organosilanes of the type $X_3Si(CH_2)_m-R'$

X = Cl, Br

m = 0, 1 - 20

R' = methyl-, aryl (for example $-C_6H_5$, substituted phenyl radicals)

$-C_4F_9$, $-OCF_2-CHF-CF_3$, $-C_6F_{13}$, $-O-CF_2-CHF_2$
 $-NH_2$, $-N_3$, $-SCN$, $-CH=CH_2$,
 $-NH-CH_2-CH_2-NH_2$
 $-N-(CH_2-CH_2-NH_2)_2$
 $-OOC(CH_3)C=CH_2$
 $-OCH_2-CH(O)CH_2$
 $-NH-CO-N-CO-(CH_2)_5$
 $-NH-COO-CH_3$, $-NH-COO-CH_2-CH_3$, $-NH-(CH_2)_3Si(OR)_3$
 $-S_X-(CH_2)_3Si(OR)_3$
 $-SH$

i) Halogeno-organosilanes of the type $(R)X_2Si(CH_2)_m-R'$

X = Cl, Br

R = alkyl, such as methyl-, ethyl-, propyl-

m = 0, 1 - 20

R' = methyl-, aryl (e.g. $-C_6H_5$, substituted phenyl radicals)

$-C_4F_9$, $-OCF_2-CHF-CF_3$, $-C_6F_{13}$, $-O-CF_2-CHF_2$
 $-NH_2$, $-N_3$, $-SCN$, $-CH=CH_2$, $-NH-CH_2-CH_2-NH_2$,
 $-N-(CH_2-CH_2-NH_2)_2$
 $-OOC(CH_3)C=CH_2$
 $-OCH_2-CH(O)CH_2$
 $-NH-CO-N-CO-(CH_2)_5$
 $-NH-COO-CH_3$, $-NH-COO-CH_2-CH_3$, $-NH-(CH_2)_3Si(OR)_3$,
 wherein R can be methyl-, ethyl-, propyl-, butyl-
 $-S_X-(CH_2)_3Si(OR)_3$, wherein R can be methyl-, ethyl-, propyl-, butyl-
 $-SH$

j) Halogeno-organosilanes of the type $(R)_2X Si(CH_2)_m-R'$

$X = Cl, Br$

$R = \text{alkyl}$

$m = 0, 1 - 20$

$R' = \text{methyl-, aryl (e.g. } -C_6H_5, \text{ substituted phenyl radicals)}$

$-C_4F_9, -OCF_2-CHF-CF_3, -C_6F_{13}, -O-CF_2-CHF_2$

$-NH_2, -N_3, -SCN, -CH=CH_2, -NH-CH_2-CH_2-NH_2$

$-N-(CH_2-CH_2-NH_2)_2$

$-OOC(CH_3)C=CH_2$

$-OCH_2-CH(O)CH_2$

$-NH-CO-N-CO-(CH_2)_5$

$-NH-COO-CH_3, -NH-COO-CH_2-CH_3, -NH-(CH_2)_3Si(OR)_3$

$-S_x-(CH_2)_3Si(OR)_3$

$-SH$

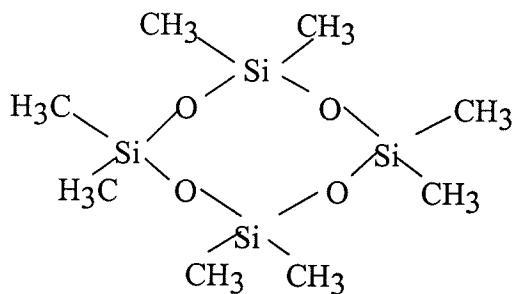
k) Silazanes of the type $R'R_2Si-N-SiR_2R'$



$R = \text{alkyl, vinyl, aryl}$

$R' = \text{alkyl, vinyl, aryl}$

l) Cyclic polysiloxanes of the type D 3, D 4, D 5, wherein D 3, D 4 and D 5 are understood as cyclic polysiloxanes with 3, 4 or 5 units of the type $-O-Si(CH_3)_2-$. E.g. octamethylcyclotetrasiloxane = D 4



$$\text{Y-O-} \left[\begin{array}{c} \text{R} \\ | \\ \text{Si-O} \\ | \\ \text{R}' \end{array} \right]_m - \left[\begin{array}{c} \text{R}'' \\ | \\ \text{Si-O} \\ | \\ \text{R}' \end{array} \right]_n - \text{Y}$$

$$\begin{aligned} m &= 0, 1, 2, 3, \dots \infty \\ n &= 0, 1, 2, 3, \dots \infty \\ u &= 0, 1, 2, 3, \dots \infty \end{aligned}$$

Y=CH₃, H, C_nH_{2n+1} n=1-20
Y=Si(CH₃)₃, Si(CH₃)₂H
Si(CH₃)₂OH, Si(CH₃)₂(OCH₃),
Si(CH₃)₂(C_nH_{2n+1}) n=1-20

- R = alkyl, such as C_nH_{2n+1} , wherein n = 1 to 20, aryl, such as phenyl und substituted phenyl radicals, $(CH_2)_n-NH_2$, H
- R' = alkyl, such as C_nH_{2n+1} , wherein n = 1 to 20, aryl, such as phenyl- and substituted phenyl radicals, $(CH_2)_n-NH_2$, H
- R' = alkyl, such as C_nH_{2n+1} , wherein n = 1 to 20, aryl, such as phenyl- and substituted phenyl radicals, $(CH_2)_n-NH_2$, H
- R' = alkyl, such as C_nH_{2n+1} , wherein n = 1 to 20, aryl, such as phenyl und substituted phenyl radicals, $(CH_2)_n-NH_2$, H

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6. (Original) The process according to Claim 5, wherein the surface-modifying agent is a member selected from the group consisting of:

- a) Organosilanes of the type $(\text{RO})_3\text{Si}(\text{C}_n\text{H}_{2n+1})$ and $(\text{RO})_3\text{Si}(\text{C}_n\text{H}_{2n-1})$
 R = alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl-
 $n = 1 - 20$
- b) Organosilanes of the type $\text{R}'_x(\text{RO})_y\text{Si}(\text{C}_n\text{H}_{2n+1})$ and $\text{R}'_x(\text{RO})_y\text{Si}(\text{C}_n\text{H}_{2n-1})$
 R = alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl-
 R' = alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl-
 R' =cycloalkyl
 $n = 1 - 20$
 $x+y = 3$
 $x = 1, 2$
 $y = 1, 2$
- c) Halogeno-organosilanes of the type $\text{X}_3\text{Si}(\text{C}_n\text{H}_{2n+1})$ and $\text{X}_3\text{Si}(\text{C}_n\text{H}_{2n-1})$
 $\text{X} = \text{Cl}, \text{Br}$
 $n = 1 - 20$
- d) Halogeno-organosilanes of the type $\text{X}_2(\text{R}')\text{Si}(\text{C}_n\text{H}_{2n+1})$ and $\text{X}_2(\text{R}')\text{Si}(\text{C}_n\text{H}_{2n-1})$
 $\text{X} = \text{Cl}, \text{Br}$
 R' = alkyl, such as, for example, methyl-, ethyl-,
n-propyl-, i-propyl-, butyl-
 R' =cycloalkyl
 $n = 1 - 20$
- e) Halogeno-organosilanes of the type
 $\text{X}(\text{R}')_2\text{Si}(\text{C}_n\text{H}_{2n+1})$ and $\text{X}(\text{R}')_2\text{Si}(\text{C}_n\text{H}_{2n-1})$
 $\text{X} = \text{Cl}, \text{Br}$
 R' = alkyl, such as, for example, methyl-, ethyl-, n-propyl-, i-propyl-, butyl-
 R' =cycloalkyl
 $n = 1 - 20$

f) Organosilanes of the type $(\text{RO})_3\text{Si}(\text{CH}_2)_m\text{-R}'$

R = alkyl, such as methyl-, ethyl-, propyl-

m = 0, 1 - 20

R' = methyl-, aryl (for example $\text{-C}_6\text{H}_5$, substituted phenyl radicals) $\text{-C}_4\text{F}_9$, $\text{-OCF}_2\text{-CHF-CF}_3$, $\text{-C}_6\text{F}_{13}$, $\text{-O-CF}_2\text{-CHF}_2$ -NH_2 , -N_3 , -SCN , -CH=CH_2 , $\text{-NH-CH}_2\text{-CH}_2\text{-NH}_2$, $\text{-N-(CH}_2\text{-CH}_2\text{-NH}_2)_2$ $\text{-OOC(CH}_3\text{)C=CH}_2$ $\text{-OCH}_2\text{-CH(O)CH}_2$ $\text{-NH-CO-N-CO-(CH}_2\text{)}_5$ -NH-COO-CH_3 , $\text{-NH-COO-CH}_2\text{-CH}_3$, $\text{-NH-(CH}_2\text{)}_3\text{Si(OR)}_3$ $\text{-S}_x\text{-(CH}_2\text{)}_3\text{Si(OR)}_3$ -SH $\text{-NR'R''R'''} (R' = \text{alkyl, aryl; } R'' = \text{H, alkyl, aryl; } R''' = \text{H, alkyl, aryl, benzyl, } \text{C}_2\text{H}_4\text{NR'''' R'''' where } R'''' = \text{H, alkyl and } R'''' = \text{H, alkyl})$ g) Organosilanes of the type $(\text{R}'')_x(\text{RO})_y\text{Si}(\text{CH}_2)_m\text{-R}'$

R'' = alkyl x+y= 2

= cycloalkyl x = 1,2

y = 1,2

m = 0, 1 to 20

R' = methyl-, aryl (for example $\text{-C}_6\text{H}_5$, substituted phenyl radicals) $\text{-C}_4\text{F}_9$, $\text{-OCF}_2\text{-CHF-CF}_3$, $\text{-C}_6\text{F}_{13}$, $\text{-O-CF}_2\text{-CHF}_2$ -NH_2 , -N_3 , -SCN , -CH=CH_2 , $\text{-NH-CH}_2\text{-CH}_2\text{-NH}_2$, $\text{-N-(CH}_2\text{-CH}_2\text{-NH}_2)_2$ $\text{-OOC(CH}_3\text{)C=CH}_2$ $\text{-OCH}_2\text{-CH(O)CH}_2$ $\text{-NH-CO-N-CO-(CH}_2\text{)}_5$ -NH-COO-CH_3 , $\text{-NH-COO-CH}_2\text{-CH}_3$, $\text{-NH-(CH}_2\text{)}_3\text{Si(OR)}_3$ $\text{-S}_x\text{-(CH}_2\text{)}_3\text{Si(OR)}_3$ -SH $\text{-NR'R''R'''} (R' = \text{alkyl, aryl; } R'' = \text{H, alkyl, aryl; } R''' = \text{H, alkyl, aryl, benzyl, } \text{C}_2\text{H}_4\text{NR'''' R'''' where } R'''' = \text{H, alkyl and } R'''' = \text{H, alkyl})$

h) Halogeno-organosilanes of the type $X_3Si(CH_2)_m-R'$

X = Cl, Br

m = 0, 1 - 20

R' = methyl-, aryl (for example $-C_6H_5$, substituted phenyl radicals) $-C_4F_9$, $-OCF_2-CHF-CF_3$, $-C_6F_{13}$, $-O-CF_2-CHF_2$ $-NH_2$, $-N_3$, $-SCN$, $-CH=CH_2$, $-NH-CH_2-CH_2-NH_2$ $-N-(CH_2-CH_2-NH_2)_2$ $-OOC(CH_3)C=CH_2$ $-OCH_2-CH(O)CH_2$ $-NH-CO-N-CO-(CH_2)_5$ $-NH-COO-CH_3$, $-NH-COO-CH_2-CH_3$, $-NH-(CH_2)_3Si(OR)_3$ $-S_X-(CH_2)_3Si(OR)_3$ $-SH$ i) Halogeno-organosilanes of the type $(R)X_2Si(CH_2)_m-R'$

X = Cl, Br

R = alkyl, such as methyl-, ethyl-, propyl-

m = 0, 1 - 20

R' = methyl-, aryl (e.g. $-C_6H_5$, substituted phenyl radicals) $-C_4F_9$, $-OCF_2-CHF-CF_3$, $-C_6F_{13}$, $-O-CF_2-CHF_2$ $-NH_2$, $-N_3$, $-SCN$, $-CH=CH_2$, $-NH-CH_2-CH_2-NH_2$, $-N-(CH_2-CH_2-NH_2)_2$ $-OOC(CH_3)C=CH_2$ $-OCH_2-CH(O)CH_2$ $-NH-CO-N-CO-(CH_2)_5$ $-NH-COO-CH_3$, $-NH-COO-CH_2-CH_3$, $-NH-(CH_2)_3Si(OR)_3$,

wherein R can be methyl-, ethyl-, propyl-, butyl-

 $-S_X-(CH_2)_3Si(OR)_3$, wherein R can be methyl-, ethyl-, propyl-,

butyl-

 $-SH$

j) Halogeno-organosilanes of the type $(R)_2X Si(CH_2)_m-R'$

X = Cl, Br

R = alkyl

m = 0, 1 – 20

R' = methyl-, aryl (e.g. $-C_6H_5$, substituted phenyl radicals)

$-C_4F_9$, $-OCF_2-CHF-CF_3$, $-C_6F_{13}$, $-O-CF_2-CHF_2$

$-NH_2$, $-N_3$, $-SCN$, $-CH=CH_2$, $-NH-CH_2-CH_2-NH_2$

$-N-(CH_2-CH_2-NH_2)_2$

$-OOC(CH_3)C=CH_2$

$-OCH_2-CH(O)CH_2$

$-NH-CO-N-CO-(CH_2)_5$

$-NH-COO-CH_3$, $-NH-COO-CH_2-CH_3$, $-NH-(CH_2)_3Si(OR)_3$

$-S_x-(CH_2)_3Si(OR)_3$

$-SH$

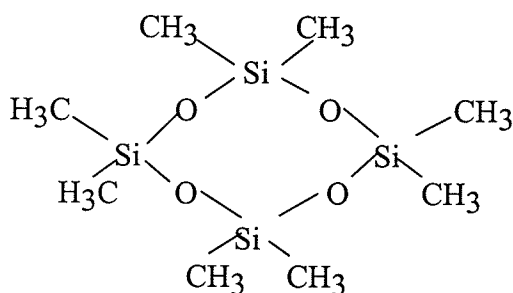
k) Silazanes of the type $R'R_2Si-N-SiR_2R'$



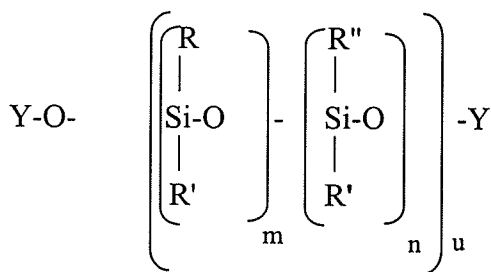
R = alkyl, vinyl, aryl

R' = alkyl, vinyl, aryl

l) Cyclic polysiloxanes of the type D 3, D 4, D 5, wherein D 3, D 4 and D 5 are understood as cyclic polysiloxanes with 3, 4 or 5 units of the type -O-Si(CH₃)₂-.E.g. octamethylcyclotetrasiloxane = D 4



m) Polysiloxanes or silicone oils of the type



$$m = 0, 1, 2, 3, \dots \infty$$

$$n = 0, 1, 2, 3, \dots \infty$$

$$u = 0, 1, 2, 3, \dots \infty$$

$$Y = CH_3, H, C_nH_{2n+1} \quad n=1-20$$

$$Y = Si(CH_3)_3, Si(CH_3)_2H$$

$$Si(CH_3)_2OH, Si(CH_3)_2(OCH_3),$$

$$Si(CH_3)_2(C_nH_{2n+1}) \quad n=1-20$$

R = alkyl, such as C_nH_{2n+1} , wherein $n = 1$ to 20 , aryl,

such as phenyl und substituted phenyl radicals,

$(\text{CH}_2)_n\text{-NH}_2$, H

R' = alkyl, such as $\text{C}_n\text{H}_{2n+1}$, wherein $n = 1$ to 20, aryl,
such as phenyl- and substituted phenyl radicals,
 $(\text{CH}_2)_n\text{-NH}_2$, H

R' = alkyl, such as $\text{C}_n\text{H}_{2n+1}$, wherein $n = 1$ to 20, aryl,
such as phenyl- and substituted phenyl radicals,
 $(\text{CH}_2)_n\text{-NH}_2$, H

R' = alkyl, such as $\text{C}_n\text{H}_{2n+1}$, wherein $n = 1$ to 20, aryl,
such as phenyl und substituted phenyl radicals,
 $(\text{CH}_2)_n\text{-NH}_2$, H

7. (Previously presented) A cosmetic preparation comprising a dermatologically acceptable carrier and the surface-modified pyrogenically produced zinc oxide powder of Claim 1.

8. (Previously presented) A cosmetic preparation comprising a dermatologically acceptable carrier and the surface-modified pyrogenically produced zinc oxide powder of Claim 2.

9. (Previously presented) A sunscreen preparation comprising a dermatologically acceptable carrier and the surface modified pyrogenically produced zinc oxide powder of Claim 1.

10. (Original) A sunscreen preparation comprising a dermatologically acceptable carrier and the surface modified pyrogenically produced zinc oxide powder of Claim 2.

11. (Previously presented) The sunscreen preparation according to Claim 9, wherein the dermatologically acceptable carrier is a member selected from the group consisting of octocrylene, ethylhexyl methoxycinnamate, phenylbenzimidazole sulfonic acid, and bis-ethylhexyloxy methoxyphenyl triazine.

12. (Previously presented) The surface-modified pyrogenically produced zinc oxide powder according to Claim 1 made from a zinc oxide which is a pyrogenically produced zinc oxide powder having a BET surface area of 10 to 100 m^2/g in the form of aggregates of anisotropic primary particles wherein the aggregates have an average diameter of 50 to 300 nm.

13. (Previously presented) The surface-modified pyrogenically produced zinc oxide powder according to Claim 12 wherein the aggregates have a shape factor F (circle) of below 0.5.

14. (Previously presented) The surface-modified pyrogenically produced zinc oxide powder according to Claim 12 wherein the zinc oxide powder displays at its surface an oxygen concentration as non-desorbable moisture in the form of Zn-OH and/or Zn-OH_2 units of at least 40%.